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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,831	03/30/2005	Martin-Peter Bolz	081276-1057-00	1633

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EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/529,831	Applicant(s) BOLZ, MARTIN-PETER	
	Examiner Thai-Ba Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>03/30/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Preliminary Amendment filed on March 30, 2005 is acknowledged. Claims 3, 4, 8, 10, 12, 15, 16 were amended; and claims 17-20 were newly added.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character **"52"** has been used to designate both **"support 52"** (See Paragraph [00036], line 10 and Paragraph [00040], line 3) and **"electronic compartment 52"** (See Paragraphs [00040] and [00041], line 7). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character **"18"** has been used to designate both **"drive shaft"** (See Figure 1) and **"electric motor"** (See Figure 2). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

- In Paragraphs [00040] and [00041], line 7, **"electronics compartment 52"** should be replaced by – **electronics' compartment 52** – (*for correcting typo error*).

Appropriate correction is required.

Claim Objections

Claim 1, 3 are objected to because of the following informalities:

- In claim 1, line 1, **"Device"** should be replaced by – **A device** --.

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- In claims 2-20, line 1, "**Device**" should be replaced by **–The device--**.
- In claim 1, lines 3 and 8, applicant should elect either "**compression area (28)**" or "**compression space (28)**" to describe the element (28) (*for consistency of claims*).
- In claims 3 and 17, line 4, "**electronics (54)**" should be replaced by **– electronic components (54)--** (*for consistency of claims*).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 1 and its dependent claims 2-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically,

- In claim 1, line 1, the recitation of "***in particular***" renders the claim indefinite, since it is not clear that how particular a device is. Applicant is required to clarify or revise the claimed limitation.
- In claim 13, line 2, the recitation of "***in particular***" renders the claim indefinite, since it is not clear that which particular way is used to integrate the electronic components into the second housing. Applicant is required to clarify or revise the claimed limitation.

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- In claim 12, line 2, the recitation of ***"can be connected"*** renders the claim indefinite, since it is not clear that under which condition the flow channel can be connected with the inlet of the housing, and under which condition the flow channel cannot be connected with the inlet of the housing. Applicant is required to identify these conditions or revise the claimed limitation.

- In Claim 16, line 2 and claim 20, line 1-2, the recitation of ***"in particular"*** renders the claim indefinite, since it is not clear that how particular elastic means is provided to open the bypass channel. Applicant is required to clarify or revise the claimed limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-9, 12-15, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Woollenweber et al. (Patent Number 6,129,524).

Woollenweber discloses a device to compress combustion air (10), in particular a device to compress combustion air for a combustion engine of a motor vehicle (See Column 1, lines 5-11), with a housing (20), with at least one compressor impeller (16) arranged in a compression area (Not Numbered) of a first housing part (Not Numbered), which is arranged in the flow direction between an air inlet (40) and an air outlet (33) of

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the housing (20), as well as with an electric motor (12) arranged in a second housing part (Not numbered) of the housing (20) to operate the compressor impeller (16), characterized in that a flow channel (33) running in the circumferential direction of the first housing part (20) and connecting the compression space (Not Numbered) with the air outlet (33) surrounds the electric motor (12) at least partially in the axial direction (See Figures 3 and 4-6);

wherein the flow channel (33) is connected with the electric motor (12) and/or the second housing part (Not Numbered);

wherein the electronic components (22), in particular the electronic components of the motor electronics of the driving electric motor (12) are integrated in such a way in the second housing part (Not Numbered) that the electronics (22) are cooled predominantly via the flow channel (33);

wherein the second housing part (Not numbered) is comprised at least partially of a heat conducting material (See Column 5, lines 17-36);

wherein the second housing part (Not Numbered) features a diffuser ring (Not Numbered), which forms a portion of the limitation of the flow channel (33) and is thermally coupled to the electric motor (12);

wherein the flow channel (33) is arranged at the high-pressure side of the compressor impeller (16);

wherein the flow channel (33) is arranged on the side of the compressor impeller (16) facing away from the air inlet (40);

wherein the flow channel (33) can be connected with the air inlet (40) of the housing (20) via a bypass channel (46) bypassing the compressor impeller (16);

wherein means (48) are provided to close the bypass channel (62) with an activated electric motor (12) (See Figure 5);

wherein the means (48) are self-setting (See Figure 5);

wherein the means (48) are air driven (See Figure 5).

Claims 1-2, 4- 8-9, and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Prevond et al. (Patent Number FR 2 815 671 A1).

Prevond discloses a device to compress combustion air, in particular a device (10) to compress combustion air for a combustion engine of a motor vehicle (See Figure 1), with a housing (Not Numbered), with at least one compressor impeller (19) arranged in a compression area (Not Numbered) of a first housing part (Not Numbered), which is arranged in the flow direction between an air inlet (22) and an air outlet (Not Numbered) of the housing (Not numbered), as well as with an electric motor (12) arranged in a second housing part (Not numbered) of the housing (Not numbered) to operate the compressor impeller (19), characterized in that a flow channel (Not numbered) running in the circumferential direction of the first housing part (Not numbered) and connecting the compression space (Not Numbered) with the air outlet (Not numbered) surrounds the electric motor (20, 21) at least partially in the axial direction (See Figures 3 and 4);

wherein the flow channel (Not numbered) is connected with the electric motor (20, 21) and/or the second housing part (Not Numbered);

wherein the electronic components (Not shown), in particular the electronic components of the motor electronics of the driving electric motor (20, 21) are integrated in such a way in the second housing part (Not Numbered) that the electronics are cooled predominantly via the flow channel (Not numbered);

wherein the second housing part (Not numbered) is comprised at least partially of a heat conducting material (See Abstract);

wherein the second housing part (Not Numbered) features a diffuser ring (Not Numbered), which forms a portion of the limitation of the flow channel (Not numbered) and is thermally coupled to the electric motor (20, 21);

wherein the flow channel (Not numbered) is arranged at the high-pressure side of the compressor impeller (19);

wherein the flow channel (Not numbered) features a cross-section that widens in the circumferential direction of the housing (Not numbered); and

wherein the flow channel (Not numbered) features an essentially elliptical cross-section, whereby the large semi-axis of the ellipse runs essentially parallel to the drive shaft (16) of the electric motor (20, 21) (See Figures 3-4, Page 10, lines 8-29).

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Woollenweber et al. (Patent number 6,129,524).

Woollenweber discloses the invention as recited above; however, Woollenweber fails to disclose the flow channel being embodied as a single piece with the second housing part.

Note that the claimed phrases the flow channel being embodied as a single piece with the second housing part is treated as product by process limitation; that is, the flow channel being embodied as a single piece with the second housing part by casting or by connecting, clamping etc.... As set forth in MPEP 2113, product by process claims are NOT limited to manipulations of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35

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USC 102/103 rejection may be made and the burden is shifted to applicant to show an obvious difference. See MPEP 2113.

Allowable Subject Matter

Claims 16 and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The IDS (PTO-1449) filed on March 30, 2005 has been considered. An initialized copy is attached hereto.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Lin (US Patent Number 6,474,066 B1) discloses an electric controlled idler type supercharger.
- Bolz et al. (US Patent Number 6,591,612 B2) disclose an electrical operated charge-air compressor.
- Allen et al. (US Patent Number 6,135,098) disclose flow through controllable air charger.
- Sercy et al. (US Patent Number 3,217,655) disclose a centrifugal pump having a bypass (11).

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- Greenwald (US Patent Number 3,041,848) discloses a variable head compressor.


- Dolza (US Patent Number 2,696,074) discloses a combined torque converter and engine air-cooling system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTB
March 20, 2007


Thai-Ba Trieu
Primary Examiner
Art Unit 3748